



PRE-CERCLIS SCREENING ASSESSMENT CHECKLIST/DECISION FORM

The checklist can be used to assist the site investigator during Pre-CERCLIS screening. This checklist should document the rationale for the decision as to whether further steps in the site investigation process are required under CERCLA. Use additional sheets, if necessary.

Checklist Preparer: Wendy Vorwerk, ESII
Name/Title

September 19, 2003
Date

4675 Homer-Ohio Lane Groveport, OH
Address

614-836-8759
Phone

wendy.vorwerk@epa.state.oh.us
E-mail Address

Site Name: Edlow Lead Company

Previous names (if any): N/A

Site Location: 729 Bank Street, Columbus, Ohio / Franklin County
(See attached description and maps).

Latitude: (if applicable) 39° 56' 50.50" N **Longitude:** 83° 0' 0.26" W

PHASE A - CERCLA Eligibility Evaluation

If the answer to any one of these is yes, the sites can be NFRAPed or Archived		YES	NO
1. Is the site non-existent, or is it not a duplicate (or "alias") of another site?		X	
2. Is the site being addressed by some other remedial program (Federal, State, or Tribal)?			X
3. Are the hazardous substances potentially released at the site excluded statutorily (e.g., petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or regulated by the NRC< UMTRCA, or OSHA)?			X
4. Are the hazardous substances potentially released at the site excluded by policy considerations (e.g., deferred to RCRA Corrective Action, FIFRA, or Brownfields)?			X
5. Is there insufficient data (provided by the State) to verify that a release has occurred (e.g., based on potentially unreliable sources or with no information to support the presence of hazardous substances or CERCLA eligible pollutants and contaminants)?			X
6. Is there sufficient documentation that clearly demonstrates that there is no potential for a release that could cause adverse environmental or human health impacts (e.g., comprehensive remedial investigation equivalent data showing no release above ARARS, completed removal action, previous HRS score determined, or an EPA approved risk assessment completed)?			X

PHASE B - INITIAL SITE EVALUATION

Use Exhibit A to make site assessment decisions based on the answers below:

	YES	NO
Is there documentation indicating that a target (e.g., drinking water wells, drinking surface water intakes, etc.) has been exposed to a hazardous substance released from the site?		X
Is there an apparent release at the site with no documentation of exposed targets, but there are targets on-site or immediately adjacent to the site?		X
Is there an apparent release and no documented on-site targets, but there are nearby targets (e.g., targets within 1 mile)?		X
Is there indication of a hazardous substance release, and there are uncontained sources containing CERCLA hazardous substances, but there is a potential to release with targets present on-site or in proximity to the site?		X
Documented onsite or nearby targets?		X
Uncontained sources containing CERCLA eligible substances are present on site.		X
There are releases or potential to release.		X

Please explain all yes answer(s). See Attached Narrative

EPA Regional Review and Site Assessment Decision

Check the box(es) that apply:

☒ NFRAP/Archive - DO NOT ENTER INTO CERCLIS. NOT A VALID SITE OR INCIDENT.☐ APA☐ Full PA☐ Combined PA/SI☐ SI

Defer/Refer to:

☐ Removal Program☐ State/Tribal Program☐ RCRA☐ Brownfields☐ Other: _____

Regional EPA Reviewer:

Print Name/Signature

Laura J. Ripley

Date

9/24/2003

Introduction

In the spring of 2001, the *American Public Health Journal* published a report on former lead smelting facilities that are potentially contaminated with high levels of lead. The study was conducted by William P. Eckel, a doctoral candidate and a current USEPA employee. Eckel cited 430 former secondary lead smelting facilities in 35 states that are unknown to federal and state authorities. Seventeen of these sites are located in Ohio. This PCS focuses on one of these sites, the Edlow Lead Company in Columbus, Ohio.

Site Description & History

The former Edlow Lead Company was located at 729 Bank Street in Columbus, Ohio. According to the Franklin County Auditor's Office, the 729 Bank Street address no longer exists but was located at the northwest corner of Bank and Frankfort Streets in Columbus. The site location and surrounding area can be seen on a USGS Quadrangle, **Figure 1**, and a 2000 aerial photograph, **Figure 2**. The property is now part of a large apartment complex (See attached photographic log).

According to the historical Polk Columbus City Directory, the 729 Bank Street address first appeared in 1901. This was the site of the Columbus Brewing Company, Branch 4 of Hoster - Columbus Association of Breweries. A 1901 Sanborn Fire Insurance Map, **Figure 3**, also shows the Columbus Brewing Co. at this location.

From 1953 to 1963, the Edlow Lead Co. was listed in the Polk Columbus City Directories at 729 Bank Street and 727 - 729 Bank Street. Aerial photographs from January 1953, and August 1955 shows a building on the site. No smokestacks or air emission structures are noticeable.

In 1964, the listing became Powdered Products Co. Inc, Industrial Soap Manufactures. This listing continued until the mid 1970's

The Edlow Lead Co exists today as Edlow International, an international shipper of nuclear fuel located in Washington D.C. On the Edlow International website www.edlow.com, is the unpublished autobiography of Samuel Edlow, the founder of the company. In this he writes about the history of the company.

The Edlow Lead Company began its Columbus operations in 1954. Samuel Edlow, a junk battery recycler from Indiana, moved to Columbus to start a company that supplied lead to the new uranium-enrichment plant in Portsmouth, Ohio. The new Portsmouth plant required a tremendous amount of lead for piping and shielding of radiation. The company provided this lead by melting "pig" lead and poured 25 pound ingots. They also sold sheet lead, solder, lead pipe and other supplies to local plumbers.

In 1955, Battelle Memorial Institute in Columbus was building a nuclear center and also

needed a large amount of lead for shielding radiation. At the time, lead bricks were made by an expensive extrusion process. Battelle wanted lead bricks that were cast from molds. Because of the nature of lead, this process was not used because gaps and voids would form in the fast cooling lead. The Edlow Company developed a method for casting solid lead bricks which were very smooth. The technique was patented, and Edlow Lead had a specialty product. Battelle also needed various containers for radioactive sources. Edlow Lead provided them with lead boxes, pots, and other shapes.

The company continued to grow into radioactive material shipping and spent-fuel shipping casks. In 1963 after a poor business decision, manufacturing ceased at the site. Samuel Edlow continued his nuclear shipping business and in 1969 moved to Washington.

Sample Locations & Analysis

To aid in a determination of whether a lead problem exists, six soil samples were collected around the site by the Ohio EPA and screened by the Ohio EPAs Spectrace 9000 X-Ray Fluorescence (XRF) unit. In addition, 10% of all the screening samples collected from the 17 lead smelter PCS sites were sent to Kemron Environmental Services for confirmation analysis. Two of the samples from this site were chosen to be sent.

The samples were collected on March 26, 2003 and were numbered ELC-1 through ELC-6. Sample locations can be found on the aerial photo in **Figure 4**. The sample locations were chosen based on accessibility and potential targets. Additionally, an attempt was made to collect samples in all directions, particularly downwind of the site.

All the samples were collected under the vegetation from the top one to two inches of soil. The samples were collected using dedicated stainless steel bowls and spoons, and were thoroughly homogenize before being packed into a jar.

The sample results for both the XRF screening and the confirmation samples can be found in **Table 1**. The results were compared to USEPA Region 9 Preliminary Remediation Goals (PRGs). The PRGs are generic risk-based concentrations used for initial screening-level evaluations and possible cleanup goals. The PRG for lead is 400 ppm in residential soil and 750 ppm in industrial soil.

Table 1: Sample Results (ppm)

ANALYTE	ELC-1 XRF	ELC-2 XRF	ELC-3 XRF	ELC-4 XRF	ELC-4 Kemron	ELC-5 XRF	ELC-6 XRF	ELC-6 XRF (dup)	ELC-6 Kemron
Aluminum	NA	NA	NA	NA	13100	NA	NA	NA	8460
Silver	NA	NA	NA	NA	0.884	NA	NA	NA	1.13
Arsenic	NA	NA	NA	NA	14.0	NA	NA	NA	15.8
Barium	NA	NA	NA	NA	143	NA	NA	NA	212
Cadmium	NA	NA	NA	NA	1.23	NA	NA	NA	1.37
Chromium	NA	NA	NA	NA	16.5	NA	NA	NA	14.4
Selenium	NA	NA	NA	NA	11.6	NA	NA	NA	ND
Lead	206	251	160	107	102	216	877	851	5500

J = Estimated Concentration; ND= Non-detect

Sample ELC-1 through ELC-2 were collected in the front and back yard of a residence located at 723 Front Street. The home is located east of the site, directly across Bank Street. It is downwind from the site. The family has owned the home since the 1920's. The samples were collected from the native soil of the residence. All the results were well below the 400 ppm PRG for residential soils.

Sample ELC-4 was collected at Shiller Park and is considered the background sample. The confirmation result of ELC-4 was less than a 1% difference to the XRF result. Sample ELC-5 was collected off a slope on the south side of the site. Both these samples were below 400 ppm.

Sample ELC-6 was collected over the rail road tracks that border the site to the south. This area can be considered industrial, and was above the 750 ppm PRG for industrial soils. This sample was also sent to Kemron for confirmation. The Kemron result was 85% higher than the XRF result. It is unknown why this occurred, but it may have to do with sample homogenization.

Conclusions

Through historical research, the Edlow Lead Site did exist at 729 Bank Street, Columbus Ohio. The site was the location of lead smelting from about 1953 to 1963. A downwind soil sample was collected from native soils in a residential yard. The results were well below the 400 ppm residential PRG.

Sample results indicate there may be a lead problem in an industrial area to the west of the site. This cannot be attributed to Edlow Lead.

From the limited samples collected, it does not appear the site has caused a lead problem in area. Therefore, no further action is recommended. However, further investigation may be warranted for the area west of the former Edlow Lead site.

PRE-CERCLIS SCREENING ASSESSMENT CHECKLIST/DECISION FORM

The checklist can be used to assist the site investigator during Pre-CERCLIS screening. This checklist should document the rationale for the decision as to whether further steps in the site investigation process are required under CERCLA. Use additional sheets, if necessary.

Checklist Preparer: Wendy Vorwerk, ESII
Name/Title

September 19, 2003
Date

4675 Homer-Ohio Lane Groveport, OH
Address

614-836-8759
Phone

wendy.vorwerk@epa.state.oh.us
E-mail Address

Site Name: Edlow Lead Company

Previous names (if any): N/A

Site Location: 729 Bank Street, Columbus, Ohio / Franklin County
(See attached description and maps).

Latitude: (if applicable) 39° 56' 50.50" N **Longitude:** 83° 0' 0.26" W

PHASE A - CERCLA Eligibility Evaluation

If the answer to any one of these is yes, the sites can be NFRAPed or Archived	YES NO	
	YES	NO
1. Is the site non-existent, or is it not a duplicate (or "alias") of another site?	X	
2. Is the site being addressed by some other remedial program (Federal, State, or Tribal)?		X
3. Are the hazardous substances potentially released at the site excluded statutorily (e.g., petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or regulated by the NRC< UMTRCA, or OSHA)?		X
4. Are the hazardous substances potentially released at the site excluded by policy considerations (e.g., deferred to RCRA Corrective Action, FIFRA, or Brownfields)?		X
5. Is there insufficient data (provided by the State) to verify that a release has occurred (e.g., based on potentially unreliable sources or with no information to support the presence of hazardous substances or CERCLA eligible pollutants and contaminants)?		X
6. Is there sufficient documentation that clearly demonstrates that there is no potential for a release that could cause adverse environmental or human health impacts (e.g., comprehensive remedial investigation equivalent data showing no release above ARARS, completed removal action, previous HRS score determined, or an EPA approved risk assessment completed)?		X

PHASE B - INITIAL SITE EVALUATION

Use Exhibit A to make site assessment decisions based on the answers below:	YES	NO
Is there documentation indicating that a target (e.g., drinking water wells, drinking surface water intakes, etc.) has been exposed to a hazardous substance released from the site?		X
Is there an apparent release at the site with no documentation of exposed targets, but there are targets on-site or immediately adjacent to the site?		X
Is there an apparent release and no documented on-site targets, but there are nearby targets (e.g., targets within 1 mile)?		X
Is there indication of a hazardous substance release, and there are uncontained sources containing CERCLA hazardous substances, but there is a potential to release with targets present on-site or in proximity to the site?		X
Documented onsite or nearby targets?		X
Uncontained sources containing CERCLA eligible substances are present on site.		X
There are releases or potential to release.		X

Please explain all yes answer(s). See Attached Narrative

EPA Regional Review and Site Assessment Decision

Check the box(es) that apply:

☒ NFRAP/Archive - DO NOT ENTER INTO CERCLIS, NOT A VALID SITE OR INCIDENT

☐ APA

☐ Full PA

☐ Combined PA/SI

☐ SI

Defer/Refer to:

☐ Removal Program

☐ State/Tribal Program

☐ RCRA

☐ Brownfields

☐ Other: _____

Regional EPA Reviewer: LAURA RIPLEY / Laura J. Ripley 9/24/2003

Print Name/Signature Date

Introduction

In the spring of 2001, the *American Public Health Journal* published a report on former lead smelting facilities that are potentially contaminated with high levels of lead. The study was conducted by William P. Eckel, a doctoral candidate and a current USEPA employee. Eckel cited 430 former secondary lead smelting facilities in 35 states that are unknown to federal and state authorities. Seventeen of these sites are located in Ohio. This PCS focuses on one of these sites, the Edlow Lead Company in Columbus, Ohio.

Site Description & History

The former Edlow Lead Company was located at 729 Bank Street in Columbus, Ohio. According to the Franklin County Auditor's Office, the 729 Bank Street address no longer exists but was located at the northwest corner of Bank and Frankfort Streets in Columbus. The site location and surrounding area can be seen on a USGS Quadrangle, **Figure 1**, and a 2000 aerial photograph, **Figure 2**. The property is now part of a large apartment complex (See attached photographic log).

According to the historical Polk Columbus City Directory, the 729 Bank Street address first appeared in 1901. This was the site of the Columbus Brewing Company, Branch 4 of Hoster - Columbus Association of Breweries. A 1901 Sanborn Fire Insurance Map, **Figure 3**, also shows the Columbus Brewing Co. at this location.

From 1953 to 1963, the Edlow Lead Co. was listed in the Polk Columbus City Directories at 729 Bank Street and 727 - 729 Bank Street. Aerial photographs from January 1953, and August 1955 shows a building on the site. No smokestacks or air emission structures are noticeable.

In 1964, the listing became Powdered Products Co. Inc, Industrial Soap Manufactures. This listing continued until the mid 1970's

The Edlow Lead Co exists today as Edlow International, an international shipper of nuclear fuel located in Washington D.C. On the Edlow International website www.edlow.com, is the unpublished autobiography of Samuel Edlow, the founder of the company. In this he writes about the history of the company.

The Edlow Lead Company began its Columbus operations in 1954. Samuel Edlow, a junk battery recycler from Indiana, moved to Columbus to start a company that supplied lead to the new uranium-enrichment plant in Portsmouth, Ohio. The new Portsmouth plant required a tremendous amount of lead for piping and shielding of radiation. The company provided this lead by melting "pig" lead and poured 25 pound ingots. They also sold sheet lead, solder, lead pipe and other supplies to local plumbers.

In 1955, Battelle Memorial Institute in Columbus was building a nuclear center and also

needed a large amount of lead for shielding radiation. At the time, lead bricks were made by an expensive extrusion process. Battelle wanted lead bricks that were cast from molds. Because of the nature of lead, this process was not used because gaps and voids would form in the fast cooling lead. The Edlow Company developed a method for casting solid lead bricks which were very smooth. The technique was patented, and Edlow Lead had a specialty product. Battelle also needed various containers for radioactive sources. Edlow Lead provided them with lead boxes, pots, and other shapes.

The company continued to grow into radioactive material shipping and spent-fuel shipping casks. In 1963 after a poor business decision, manufacturing ceased at the site. Samuel Edlow continued his nuclear shipping business and in 1969 moved to Washington.

Sample Locations & Analysis

To aid in a determination of whether a lead problem exists, six soil samples were collected around the site by the Ohio EPA and screened by the Ohio EPA's Spectrace 9000 X-Ray Fluorescence (XRF) unit. In addition, 10% of all the screening samples collected from the 17 lead smelter PCS sites were sent to Kemron Environmental Services for confirmation analysis. Two of the samples from this site were chosen to be sent.

The samples were collected on March 26, 2003 and were numbered ELC-1 through ELC-6. Sample locations can be found on the aerial photo in **Figure 4**. The sample locations were chosen based on accessibility and potential targets. Additionally, an attempt was made to collect samples in all directions, particularly downwind of the site.

All the samples were collected under the vegetation from the top one to two inches of soil. The samples were collected using dedicated stainless steel bowls and spoons, and were thoroughly homogenize before being packed into a jar.

The sample results for both the XRF screening and the confirmation samples can be found in **Table 1**. The results were compared to USEPA Region 9 Preliminary Remediation Goals (PRGs). The PRGs are generic risk-based concentrations used for initial screening-level evaluations and possible cleanup goals. The PRG for lead is 400 ppm in residential soil and 750 ppm in industrial soil.

Table 1: Sample Results (ppm)

ANALYTE	ELC-1 XRF	ELC-2 XRF	ELC-3 XRF	ELC-4 XRF	ELC-4 Kemron	ELC-5 XRF	ELC-6 XRF	ELC-6 XRF (dup)	ELC-6 Kemron
Aluminum	NA	NA	NA	NA	13100	NA	NA	NA	8460
Silver	NA	NA	NA	NA	0.884	NA	NA	NA	1.13
Arsenic	NA	NA	NA	NA	14.0	NA	NA	NA	15.8
Barium	NA	NA	NA	NA	143	NA	NA	NA	212
Cadmium	NA	NA	NA	NA	1.23	NA	NA	NA	1.37
Chromium	NA	NA	NA	NA	16.5	NA	NA	NA	14.4
Selenium	NA	NA	NA	NA	11.6	NA	NA	NA	ND
Lead	206	251	160	107	102	216	877	851	5500

J = Estimated Concentration; ND= Non-detect

Sample ELC-1 through ELC-2 were collected in the front and back yard of a residence located at 723 Front Street. The home is located east of the site, directly across Bank Street. It is downwind from the site. The family has owned the home since the 1920's. The samples were collected from the native soil of the residence. All the results were well below the 400 ppm PRG for residential soils.

Sample ELC-4 was collected at Shiller Park and is considered the background sample. The confirmation result of ELC-4 was less than a 1% difference to the XRF result. Sample ELC-5 was collected off a slope on the south side of the site. Both these samples were below 400 ppm.

Sample ELC-6 was collected over the rail road tracks that border the site to the south. This area can be considered industrial, and was above the 750 ppm PRG for industrial soils. This sample was also sent to Kemron for confirmation. The Kemron result was 85% higher than the XRF result. It is unknown why this occurred, but it may have to do with sample homogenization.

Conclusions

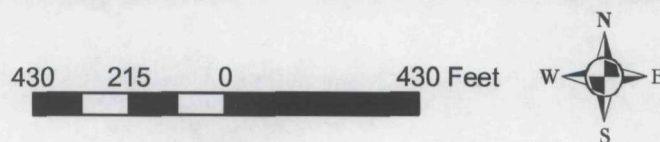
Through historical research, the Edlow Lead Site did exist at 729 Bank Street, Columbus Ohio. The site was the location of lead smelting from about 1953 to 1963. A downwind soil sample was collected from native soils in a residential yard. The results were well below the 400 ppm residential PRG.

Sample results indicate there may be a lead problem in an industrial area to the west of the site. This cannot be attributed to Edlow Lead.

From the limited samples collected, it does not appear the site has caused a lead problem in area. Therefore, no further action is recommended. However, further investigation may be warranted for the area west of the former Edlow Lead site.



Figure 1: Site Location Map
Edlow Lead Company
USGS Quadrangle





Former Location of
The Edlow Lead Co.
729 Bank Street

Figure 2: Site Location Map
Edlow Lead Company
2000 Aerial Photograph

430 215 0 430 Feet



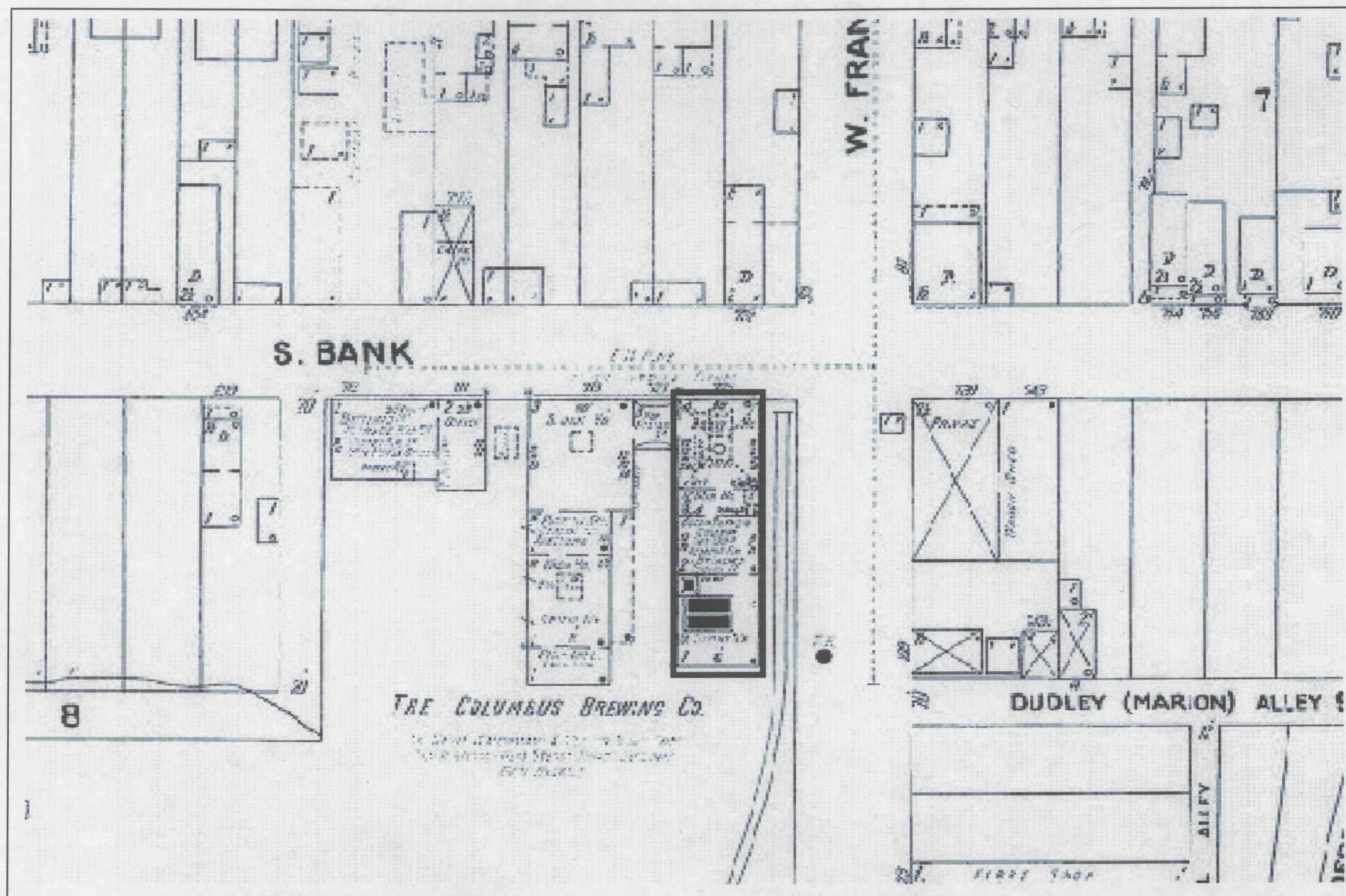


Figure 3:
1901 Sanborn Fire Insurance Map
Edlow Lead Company



Figure 4: Sample Location Map
Edlow Lead Company
2000 Aerial Photograph

330 165 0 330 Feet

